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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Complete if Known

Application Number	10/542,697
Filing Date	23 January 2004
First Named Inventor	Enrique V. Barrera et al.
Art Unit	Unknown 2881
Examiner Name	Unknown Vanore
Attorney Docket Number	11321-P061WOUS

Sheet 2 of 6

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/D.V./	8	Iijima, "Helical microtubules of graphitic carbon," Nature, 354, pp. 56-58 (1991)	
/D.V./	9	Iijima et al., "Single-shell carbon nanotubes of 1-nm diameter," Nature, 363, pp. 603-605 (1993)	
/D.V./	10	Bethune et al., "Cobalt-catalysed growth of carbon nanotubes," Nature, 363, pp. 605-607 (1993)	
/D.V./	11	Ebbesen, "Carbon Nanotubes," Annu. Rev. Mater. Sci., 24, pp. 235-264 (1994)	
/D.V./	12	Zhou et al., "Materials Science of Carbon Nanotubes: Fabrication, Integration, and Properties of Macroscopic Structures of Carbon Nanotubes," Acc. Chem. Res., 35(12), pp. 1045-1053 (2002)	
/D.V./	13	Dai, "Carbon Nanotubes: Synthesis, Integration, and Properties," Acc. Chem. Res., 35(12), pp. 1035-1044 (2002)	
/D.V./	14	Yakobson et al., "Fullerene Nanotubes: C1,000,000 and Beyond," American Scientist, 85, pp. 324-337 (1997)	
/D.V./	15	Ajayan, "Nanotubes from Carbon," Chem. Rev., 99, pp. 1787-1799 (1999)	
/D.V./	16	Baughman et al., "Carbon Nanotubes—the Route Toward Applications," Science, 297, pp. 787-792 (2002)	
/D.V./	17	Ausman et al., "Nanostressing and Mechanochemistry," Nanotechnology, 10, pp. 258-262 (1999)	

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Sheet	3	of	6
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/D.V./	19	Bozhko et al., "Resistance vs. Pressure of Single-Wall Carbon Nanotubes," Appl. Phys. A, 67, pp. 75-77 (1998)	
/D.V./	20	Bezryadin et al., "Multiprobe Transport Experiments on Individual Single-Wall Carbon Nanotubes," Physical Review Letters, 80, 4036-4039 (1998)	
/D.V./	21	Nardelli et al., "Mechanical deformations and coherent transport in carbon nanotubes", Physical Review B, 60, 16334-16341 (1999)	
/D.V./	22	Peng et al., "Chemical control of nanotube electronics," Nanotechnology, 11, 57-60 (2000)	
/D.V./	23	Tomblor et al., "Reversible electromechanical characteristics of carbon nanotubes under local-probe manipulation," Nature, 405, 769-772 (2000)	
/D.V./	24	Baughman et al., "Carbon Nanotube Actuators," Science, 284, 1340-1344 (1999)	
/D.V./	25	Kong et al., "Nanotube Molecular Wires as Chemical Sensors," Science, 287, pp. 622-625 (2000)	
/D.V./	26	Collins et al., "Extreme Oxygen Sensitivity of Electronic Properties of Carbon Nanotubes," Science, 287, pp. 1801-1804 (2000)	

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/D.V./	28	Hadjiev et al., "Raman scattering test of single-wall carbon nanotube composites," Applied. Physics Letters, 78, 3193-3195 (2001)	
/D.V./	29	Li et al., "Carbon Nanotube Film Sensor," Advanced Materials, Submitted (2003)	
/D.V./	30	Wagner et al., "Stress-induced fragmentation of multiwall carbon nanotubes in a polymer matrix," Applied Physics Letters, 72, 188-190 (1998)	
/D.V./	31	Schadler et al., "Load transfer in carbon nanotube epoxy composites," Applied Physics Letters, 73, 3842-3844 (1998)	
/D.V./	32	Zhao et al., "The Use of Carbon Nanotubes to Sense Matrix Stresses Around a Single Glass Fiber," Composites Sci. & Tech., 61, pp. 2139-2143 (2001)	
/D.V./	33	Zhao et al., "Direction-Sensitive Train Mapping with Carbon Nanotube Sensors," Composites Sci. & Tech., 62, pp. 147-150 (2002)	
/D.V./	34	Liu et al., "Fullerene Pipes," Science, 280, pp. 1253-1256 (1998)	
/D.V./	35	Chen et al., "Solution Properties of Single-Walled Carbon nanotubes," Science, 282, pp. 95-98 (1998)	
/D.V./	36	Khabashesku et al., "Fluorination of Single-Wall Carbon Nanotubes and Subsequent Derivatization Reactions," Acc. Chem. Res., 35, pp. 1087-1095 (2002)	

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/D.V./	38	Holzinger et al., "Sidewall Functionalization of Carbon Nanotubes," Angew. Chem. Int. Ed., 40(21), pp. 4002-4005 (2001)	
/D.V./	39	Bahr et al., "Covalent chemistry of single-wall carbon nanotubes," J. Mater. Chem., 12, pp. 1952-1958 (2002)	
/D.V./	40	Gu et al., "Cutting Single-Wall Carbon Nanotubes through Fluorination," Nano Letters, 2(9), pp. 1009-1013 (2002)	
/D.V./	41	O'Connell et al., "Reversible water-solubilization of single-walled carbon nanotubes by polymer wrapping," Chem. Phys. Lett., 342, pp. 265-271 (2001)	
/D.V./	42	Rinzler et al., "Large-Scale Purification of Single-Walled Carbon Nanotubes: Process, Product, and Characterization," Appl. Phys. A, 67, pp. 29-37 (1998)	
/D.V./	43	Zimmerman et al., "Gas-Phase Purification of Single-Wall Carbon Nanotubes," Chem. Mater., 12(5), pp. 1361-1366 (2000)	
/D.V./	44	Chiang et al., "Purification and Characterization of Single-Wall Carbon nanotubes," J. Phys. Chem. B, 105, pp. 1157-1161 (2001)	
/D.V./	45	Chiang et al., "Purification and Characterization of Single-Wall Carbon Nanotubes (SWNTs) Obtained from the Gas-Phase Decomposition of CO (HiPco Process)," J. Phys. Chem. B, 105, pp. 6297-6301 (2001)	
/D.V./	46	Farkas et al., "Length sorting cut single wall carbon nanotubes by high performance liquid chromatography," Chem. Phys. Lett., 363, pp. 111-116 (2002)	

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/D.V./	48	Bachilo et al., "Structure-Assigned Optical Spectra of Single-Walled Carbon Nanotubes," Science, 298, 2361-2366 (2002)	
/D.V./	49	Strano et al., "Electronic Structure Control of Single Walled Carbon Nanotube Functionalization," Science, 301, pp. 1519-1522 (2003)	
/D.V./	50	Suzuki et al., "Photoemission spectroscopy of single-walled carbon nanotube bundles," J. Electron Spectroscopy, vol. 114-116, pp. 225-228 (2001)	
/D.V./	51	O'Connell et al., "Band Gap Fluorescence from Individual Single-Walled Carbon Nanotubes," Science, 297, pp. 593-596 (2002)	
/D.V./	52	Dharap et al., "Nanotube film based on single-wall carbon nanotubes for strain sensing," Nanotechnology, 15(3), pp. 379-382 (2004)	
/D.V./	53	Frogley et al., "Polarized resonance Raman spectroscopy of single-wall carbon nanotubes within a polymer under strain," Physical Review B, 65, 113413-113416 (2002)	
/D.V./	54	Smits, "Measurement of sheet resistivities," 5 The Bell System Technical Journal, (1958), pgs. 711-718	
/D.V./	55	Hone et al., "Electrical and thermal transport properties of magnetically aligned single wall carbon nanotube films," Applied. Physics Letters, 77, 666-668 (2000)	
/D.V./	56	Collins et al., "Extreme Oxygen Sensitivity of Electronic Properties of Carbon Nanotube," Science, 287, pp. 1801-1804 (2000)	

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